

SPOTLIGHT 186 - *Casablanca Int.*

by Derek Taylor

THE spotlight this time around falls on a very famous pirate from Emmer-Compascuum in the east of the Netherlands.

Casablanca International is one of the old school of pirates and has been a regular broadcaster on MW since his first transmission way back in 1974.

Hans, an ex DJ on the Ross Revenge is a well known voice on 186 and 183 metres. His distinctive sound with echo effect plus the non-stop 60s and 70s hits has kept many a DXer tuned in at weekends till the early hours.

For a few years, the name Valentino was used, mostly on 227 metres before the name Casablanca was chosen in 1978. Hans is now 38 years old and married with three children. He runs a video shop not too far from home.

The transmitter is self built and gives around 700 watts power. Hans uses an antenna of some 21 metres high and around 40 metres long. For reception and QSO contacts, he uses an old domestic valve radio. The Casablanca studio is quite small but everything is

neatly laid out. There is a very big record collection mostly of stuff from the 1960s.

Transmitting most weekends and now using 183 metres, Casablanca has a strong signal and the modulation has improved recently. Multilingual IDs are used and promotions for Pirate Chat and DPRS can be heard too.

Although not renowned as a quick verifier, Hans does reply eventually. Send you reports to P.O. BOX 25, 7880 AA Emmer-Compascuum, Netherlands. He will usually send a few stickers along with the QSL so it's worth dropping him a line. You can of course write to the DPRS, where your report will be sent directly to the pirate's home address.

Casablanca invites listeners to call him with reports and comments. The tel. no. is 010-31 5912-1123. You don't have to speak Dutch as Hans speaks fairly good English.

Do listen out for this station, especially in the winter months. The programmes last about two hours, usually starting around midnight UTC. The music is great and you won't be disappointed. ■

PIRATE CHAT ADDRESS:

12 DORMAN ROAD, PRESTON, ENGLAND PR2 6AS

ISSUE No. 36 - SEPTEMBER 1993

PIRATE CHAT

This issue features . . .

TECHNICAL TALK

RADIO AQUARIUS AND MY PART IN IT

PC MEETS DPRS

CHRIS FEENY JOINS PC

The deadline for all contributions for the November issue of PIRATE CHAT is October 27th 1993

PIRATE CHAT

Bi-monthly Free Radio
News and Features

PIRATE CHAT MAGAZINE is published on a bi-monthly basis for worldwide distribution. We have readers all over the world as far away as the USA and South Africa.

PC usually contains around 30 - 40 packed pages with all sorts of news. In each issue, you can expect to find news from FM, MW, SW, USA and much more, including special features from the Free Radio scene. We believe that we are the ONLY publication to carry news from all bands on such a large scale.

SUBSCRIPTION RATES

A sample copy costs £1.

A six month subscription costs £6.

A year subscription costs £10.

This money is acceptable in any currency but please make sure that all cheques, postal orders and eurocheques have the payee line left blank. Just fill in the amount of money to be paid but don't make the document payable to anybody. This ensures that we can easily put the money into our account.

ADVERTISING

Small non-profit making adverts can be placed in the magazine free of charge. Money making promotions will cost a small amount and for these, the editor should be contacted.

CONTENTS

Page 3	Station Responses
Page 4	Trading Corner
Page 5	FM News From Around The UK
Page 6	Radio Aquarius and my part in it
Page 8	Technical Talk
Page 10	PC Meets DPRS
Page 11	Chris Feeny
Page 12	SW Logs at a Glance
Page 14	A-Z SW Section
Page 20	Special aerial feature
Page 22	North American Roundup
Page 23	Dutch MW News
Page 24	Dutch MW Logs
Page 26	Propagation Properties
Page 28	Spotlight 186 - Casablanca Int

OK then avid PC readers, I hope everything is fine with you in out there in the listening world of Free Radio. Welcome to the September PC, which is as you will notice, a touch smaller than usual but this is because of the staggering size of the last issue! Talking about PC August, I must say a very big thank you for all of the very nice and encouraging comments concerning mine and Derek's Dutch articles and also the Radio Aquarius story. It makes everything so worth while and meaningful when I receive your friendly and thought provoking letters. It is also wonderful in the way that all of the PC contributors send information on a regular basis ready for each issue. A big thank you to one and all. Thanks to the following for the nice comments about the last issue:

Derek Taylor, Terry Starr, Francis Mougenez, Martin Deeley, Andy Howlett, Radio Pluto, Radio Delta, Radio Pacman, Radio Silverbird, David Williams, Radio Pirana, John Campbell, Radio Utopia, Jack Milner, Radio Barones, Tony Smith, Radio Orang Utan, Falcon Radio, Peter Galliker, Xenon Transmitting Company, Radio East Coast Commercial, Ralf Pokar, WNKR, Doug Sharrard and Jim Salmon.

Well, what can you find here in PC 36? The answer is hopefully some very interesting feature articles and much more! Andy Howlett continues the amazing Radio Aquarius story, we have information concerning everything that you ever wanted to know about MW properties, about my recent visit to Europe's most famous MW DXer, our popular station responses section is full to the brim, Derek Taylor takes a look at Casablanca Radio and gives you the latest MW pirate news, you can find out all of the information needed to build a 76 metre loop and of course, there's all the usual things as well! Not bad eh?

The next issue is due out in November and we will then be back to at least 32 pages, perhaps 36 or 40. It all depends on what there is to report from the Free Radio scene. I look forward to any comments about this issue and once again, thank you very much indeed for all those that have recently sent information or written with praise. It is all very much appreciated!

73s - PC Editor ■

==STATION RESPONSES==

compiled by PC Editor

Radio Albatros	MW	SAE	6 weeks	ppc	DT
Blauwe Cobra	MW	SAE	3 weeks	lt+ppc	DT
Blonde Ale	MW	SAE	2 weeks	lt+ph+pd+ppc	DT
Radio Camouflage (DPRS)	MW	\$1	1 week	lt+cd	FM
Radio Carolina	MW	SAE	2 weeks	lt+st	DT
Radio Casablanca International	MW	SAE	6 weeks	lt+st+ph	DT
Radio Dollijn	MW	SAE	5 weeks	lt+st+ppc	DT
Radio Flandria	MW	SAE	2 weeks	lt+st+ppc	DT
Radio Kontakt	MW	SAE	1 week	lt+ppc	DT
Radio Lotus	MW	SAE	12 weeks	ppc	DT
Radio Magneet International	MW	SAE	2 weeks	lt+st+pd	DT
Radio Marsdiep	MW	SAE	1 week	lt	PC
Radio Marsdiep (DPRS)	MW	SAE	2 weeks	lt+pd	FM
Mr. X	MW	SAE	1 week	ppc	DT
Radio Olympia (DPRS)	MW	SAE	2 weeks	lt	PC
Pedro Radi (DPRS)	MW	SAE	4 weeks	lt+st+bd	FM
Radio Schimanski	MW	SAE	1 week	lt+ppc	DT
Radio Scotland	MW	SAE	2 weeks	lt+cd+cass+pd	PC
Radio Sylvania (DPRS)	MW	SAE	2 weeks	lt+pd	FM
Radio Telstar	MW	SAE	3 weeks	lt+ph+ppc	DT
Radio Texta Cowboy	MW	SAE	4 weeks	lt+ppc	DT
Radio Thoreline (DPRS)	MW	SAE	10 weeks	lt	FM
Radio Trobadoer	MW	SAE	3 years!!	ppc	DT
Radio Valencia	MW	SAE	2 weeks	lt	DT
Radio Verona (DPRS)	MW	SAE	2 weeks	lt	FM
Radio X	MW	SAE	3 weeks	lt+st+ph+pd	DT
Radio Ability	SW	\$1	2 weeks	cd+cass	FM
Radio Aries	SW	IRC	7 weeks	lt+cd+info	RP
Radio Benelux	SW	IRC	8 weeks	lt+cd	RP
Radio Catapulte	SW	F stamps	9 weeks	Special QSL	FM
Clandestine Listeners Club	SW	IRC	2 weeks	cd	RP
Radio Dr. Tim	SW	DM stamps	7 weeks	lt+info	FM
Radio Esoterica	SW	IRC x 2	6 weeks	lt+cd	FM
Radio Francis Drake	SW	IRC	8 weeks	cd+info	RP
Free Radio Service Holland	SW	IRC	10 weeks	lt+cd+info	RP
Radio Jimmy International	SW	\$1	3 weeks	lt	FM
Jolly Roger Radio	SW	IRC	6 weeks	lt+cd+info	RP
Radio Jimmy International	SW	IRC	3 weeks	lt+sh	RP
Radio Karibu	SW	IRC	2 weeks	lt+cd	RP
Radio Meteor	SW	IRC	3 weeks	lt+info	RP
Radio Mi Amigo	SW	IRC x 2	8 weeks	lt	FM
N. American Pirate Relay Scve	SW	\$1	4 weeks	cd+info	FM
Radio Northsea International	SW	DM stamps	4 weeks	lt+cd+info	FM
Radio Pacman	SW	\$1	2 weeks	lt+cd+info	FM
Radio Piraña International	SW	IRC x 2	14 weeks	lt+cd+info	FM
Radio Scottish Montreal	SW	\$1	6 weeks	lt+info	FM

KEY

(DPRS)	forwarded by the Dutch Pirate Radio Service			
lt	letter	info	information	bd badge
cd	QSL card	pc	publicity card	DT Derek Taylor
st	sticker	cass	audio tape	FM Francis Mougenez
sh	QSL sheet	pd	postcard	PC Pirate Chat Editor
ph	photograph	ppc	prepared QSL	RP Ralf Pokar ■

RADIOGOLD TAPES

If you have found the first two parts of the Radio Aquarius story at all interesting, then RadioGold Tapes are a real must for you. The 1970s were a truly great time for Free Radio in the North-West of England and you are now able to go back in time and hear the stations of the day for yourselves. RadioGold Tapes offers a selection of cassettes which cover a variety of station recordings such as Radio Lancashire, Radio Andromeda, Radio Aquarius to name but a few. I have listened to some of these cassettes and heard Free Radio like you will never hear it today. I particularly found humorous some of the spoof adverts put together which are very cleverly aimed at the authorities of the time. The stations that feature on these cassettes were certainly not afraid of the Post Office as it was then and this most definitely comes across in the presentation. Why not take up the offer of listening to fearless Free Radio of the 1970s. Send today for more details to:

RadioGold Tapes,
43 Cheetham Hill Road
Dukinfield Cheshire
England
SK16 5JL

PIRATE CHAT
THE Free Radio magazine
every two months

DPRS

Dutch Pirate Radio Service

You now have the opportunity to join the DPRS, Europe's most effective pirate radio forwarding service! The Dutch Pirate Radio Service will forward any mail directly to the home address of any Dutch MW pirate radio station. Tapes will be sent for no extra charge and if you can't write Dutch, a covering letter in the language will be included for those stations that cannot speak your language. Also, for those stations that don't issue their own QSLs, a prepared QSL will be enclosed for the station to sign and return to you. The DPRS can do anything as far as Dutch MW Free Radio stations are concerned and all for just £10. This nominal fee will entitle you to a one year subscription to this service along with your membership card and number. We have joined and so should you! The address:

DPRS 12 Dorman Road
Preston England PR2 6AS

WANTED

One of our readers is keen to find a 20 watt SW transmitter and inverter. Anybody that can help is requested to please contact us with details which will then be forwarded. Our address:

Pirate Chat 12 Dorman Road
Preston England PR2 6AS

WANTED

One of our very faithful readers would be very grateful indeed if anybody could provide him with a good size photograph of the Caroline ship, Mi Amigo. Anybody who can help should write to:

Jack Milner 6 The Park Southowram
Halifax West Yorkshire HX3 9QY ■

FM NEWS FROM AROUND THE UK

ALL NEWS FROM AUGUST

MERSEYSIDE

100.00 CRUISE
100.65 PUMP
100.80 CLUB
101.50 METRO
101.50 NOVA
105.10 ZEE 100
105.50 PREMIER
105.50 COMMODORE

WEST MIDLANDS

89.90 SANGAM
92.00 APNA
94.20 SKYLINE
99.70 SUNRISE
100.50 EXILE
100.85 SUPREME
101.40 LINK
101.90 POWAH
103.50 PCRL
105.30 METRO
105.60 STEREO 105
106.30 FRONTLINE
107.20 DUB

NOTTINGHAMSHIRE

87.90 HEATWAVE COMMUNITY
95.10 CITY
97.30 HORIZON
100.50 FUTURE
102.50 POWER
105.70 CENTRE
106.30 BREEZE
106.50 BUZZ
107.00 PULSE
107.30 TOUCH
107.70 GLOBE

DERBYSHIRE

96.70 STAR
105.40 NORTH MIDLANDS

LEICESTERSHIRE

107.50 KICKIN'

WEST YORKSHIRE

94.60 ASIAN AIR
99.90 DREAM
100.50 ROCK SOLID
104.90 FREEDOM
105.30 RAPID
105.50 ASIAN PARADISE
105.70 PEOPLES
107.40 WKLR

SOUTH YORKSHIRE

100.50 BRITANNIA
100.70 FRESH
105.10 SHEFFIELD COMMUNITY

HAMPSHIRE

105.00 PCRX
105.00 RED APPLE
105.20 ANGEL
105.45 JAMM
107.00 KOOL

AVON

87.70 FTP
101.10 ROUGH AND WICKED
105.25 BAKAR
106.70 UN IDENTIFIED STATION

CONTRIBUTORS

John Hickling, FRMSEM
Sid Morris, West Midlands
Anthony Page, West Midlands
Tony Smith, Hampshire
Terry Star, Avon
Jeff Stevenson, West Midlands
James Welsh, Merseyside

Sorry we have no London news this time around but this is due to nothing being received from our contributors in the capital. Don't worry though, our roundup of the scores of London pirates will be back next time in November! ■

RADIO AND MY PART IN IT . . .

AQUARIUS by Andy Howlett

THE arrival of Independent Local Radio gave us something to think about. Given the extra choice, would our listeners desert us? We decided to do something about it and when we heard that Piccadilly Radio (261 MW and 97 FM) was due to soon start broadcasting, we knew what we had to do. Our VHF transmitter was on 96.7 MHz, quite close to Piccadilly so we made plans for an all day broadcast starting one hour before they were due on the air. With any luck, people would tune to us instead of Piccadilly. After all, there was no such thing as digital tuning in those days so most listeners wouldn't know the difference. It was worth a try even if it did mean an early start and possibly no sleep for some of us but this was Free Radio!

And so we found ourselves stumbling through moorland on the night of April 1st, 1974. Carrying two car batteries, transmitter, aerial and assorted stuff were Stuart, Frank, Pete (also known as DJ Barry Derv) and me. It was rather cold and there was about half a miles walk up to the site in Lyme Park, Disley. Nick Catford from Radio Jackie in London was also due to arrive but had not yet turned up.

The gear was dumped at the top of the hill to the sound of much gasping and wheezing. Pete and I were the lucky (?) ones who were to stay overnight and put the station on air in the morning. When the others drove away, we felt very lonely and didn't really know what to do with ourselves. Stuart had told me to shift the frequency of the transmitter to bring it slightly closer to Piccadilly's channel but it was far too dark to start mucking around with the rig. By now it was turning very

cold indeed and a mist-laden icy wind was gusting over the dry-stone wall nearby. After half-heartedly listening to the radio for a while and a ridiculous game of 'I Spy' (something beginning with B Blackness!), we huddled together for warmth and waited. After an hour or two, we heard faint noises coming from somewhere along the hill. The sounds came closer although it was hard to tell what it was over the sound of the howling wind. In the end, we heard "Hello?" and so decided it must be Nick, searching for us. We shouted "over here!" and saw the beam from his torch swing in our direction. After the introductions, we settled down in the bushes and listened to the BBC World Service for a while but it was getting too cold to remain still for long. Nobody dared fall off to sleep. Of all the experiences I had with Aquarius, this is the only one I would not repeat.

Eventually, the sky began to brighten. I looked at my watch, which told me it was 5 o'clock and time to set up. Piccadilly's carrier was on so with numb fingers, I removed the lid from the exciter and gingerly tweaked the VFO coil. While I was doing this, the others were assembling the three element aerial and poking it up a nearby tree. Waiting for 6 o'clock seemed like an eternity and it was still very cold but at ten minutes before the hour, we decided to fire everything up for ten minutes of silent carrier. The dynamotor whined up to speed, generating the 250 volts required by the PA valve and Aquarius took to the air again!

At 6 am, our first tape, consisting of continuous music with no IDs was started.

RADIO AQUARIUS . . . MY PART IN IT

Stuart's programme was next, then mine at 9 o'clock and I remember starting with Good Morning from the Beatles. But what was this? The cassette player was slowing down! We knew we would have to replace the batteries at some time during the day but we hadn't expected them to go flat quite so soon. In went the new set of cells, which kept us going for another couple of hours.

Stuart and a few others had turned up by now and from somewhere came a brand new 'lantern' battery which saw us through. Stuart said he had travelled from his home in Hazel Grove into central Manchester and the Aquarius signal was strong and clear all the way, which was a great boost to our morale.

At about three in the afternoon, we came to the end of our tapes which was just as well because the final battery was drooping slightly. I recall feeling really depressed at the thought of trudging home by bus and train - all I wanted to do was curl up and sleep.

We got quite a bit of mail following this transmission, most of it favourable. We decided to do a series of Sunday FM broadcasts from the same place and all went smoothly until mid-May, just after my 21st birthday. We were on air as normal and had just played a piece that Stuart had made, all about black workers' conditions in South Africa. Suddenly, one of our lookouts said "Watch it, there's a group of blokes in suits down there." We took turns in peering over the wall, through the bins and what we saw could only mean one thing - a raid!

They were coming straight toward us but about half a mile away so we should have made a neat getaway. After all, they couldn't see us because we were hidden by the wall. So we calmly (well, fairly calmly) went off the air and hid all the clobber in the bushes.

When we were all ready, we made our way down the hill towards the main park area, all except Trevor James, our new DJ, who walked straight toward the men in suits, pretending to be a bird watcher. He got away with it!

We were not so lucky. At the bottom of the hill there was a high wall, where we stopped and decided which way to go. We climbed over the wall, straight into the path of a group of PO officials and police! Damn! There was no escape this time and we were escorted to Lyme Hall for questioning. One by one, we were grilled by Gordon (no surnames) and one of his henchmen. When it came to my turn, even though I was terrified, I decided to have some fun. It went like this . . .

HIM: Right then, Mr Howlett. Fancy meeting you again. What do you know about Radio Aquarius, eh?

ME: Hmmm . . . I've heard of that. Is it one of those new independent things?

HIM: Come on now. What about it?

ME: Alright, I've heard of it but never listened to it. I don't know why you've brought me here, I haven't done anything.

HIM: Why did you run away from us then?

ME: Well, I was out for a nice walk when all hell broke loose. I could see other people running and I thought there was a bomb scare or something so I ran as well.

HIM: (turning purple) DON'T GIVE ME THAT - I'M NOT GREEN YOU KNOW!!

ME: (beginning to enjoy it) I can see that.

HIM: Don't get smart with me. I know you're involved. (Sweating) I'M NOT GREEN!!

He said "I'm not green" several times and Bob made use of the phrase in one of his spoof adverts. ■

New regular feature

Technical Talk

by Dave Martin (WNKR)

THE 76 metre loop is a spiral loop with rough overall dimensions of 21" x 25", which is small enough to put on a table next to the receiver.

The loop will cover a frequency range of around 2 to 6.5 MHz, with maximum response between 3.5 and 4.5 MHz.

The circuit consists of a four turn loop, L1, tuned by VC1, which is a dual-gang 500 pf per section, variable capacitor, L2. The coupling loop is 1 turn and is tuned by VC2, single 500 pf variable capacitor. L2 is connected to the receiver by coaxial cable.

CONSTRUCTION

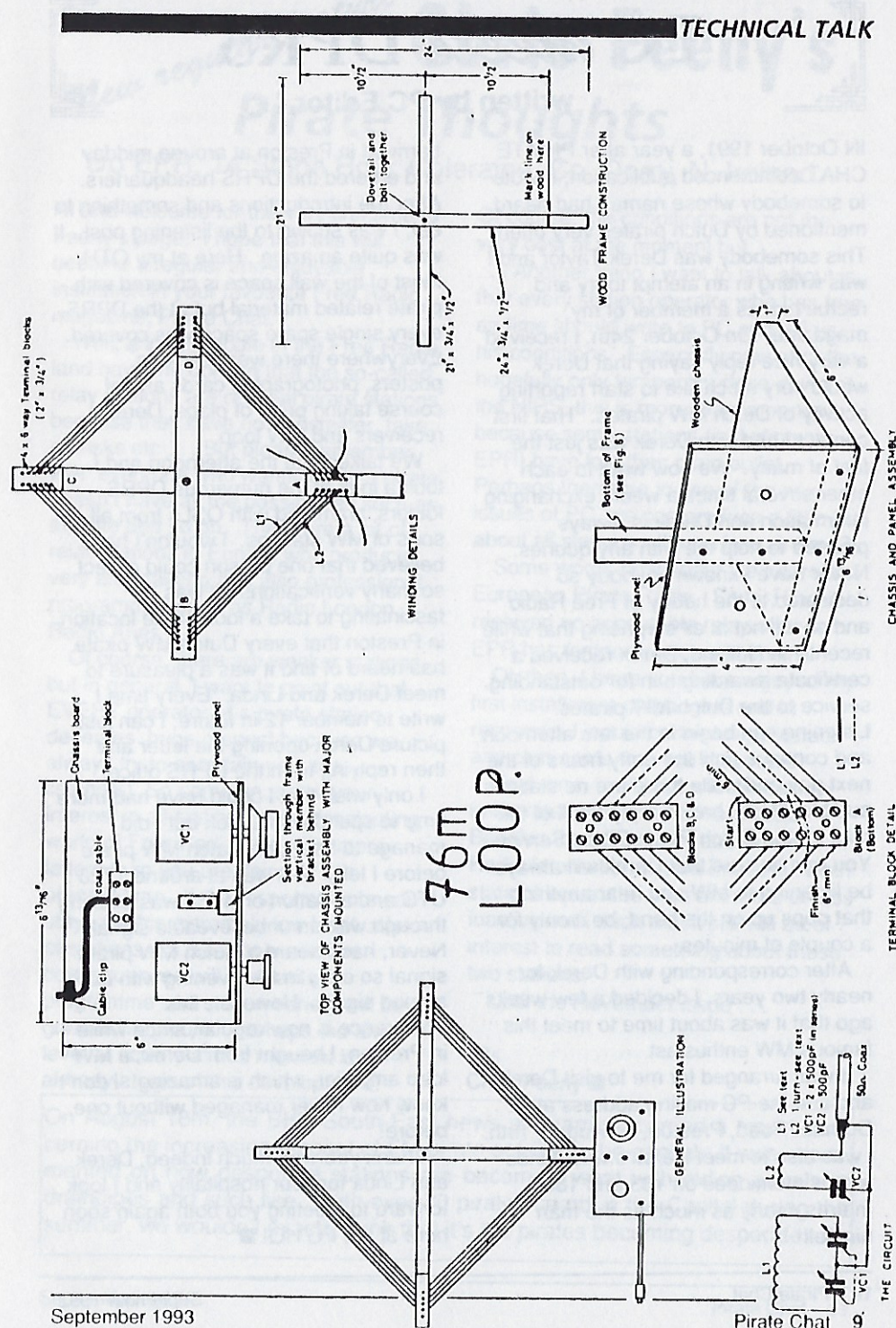
Construction is fairly straight forward if you study the drawings carefully. The important thing is the thickness given for the base because if too light, the loop may tip over. For the windings, you will need about six metres of 1 mm PVC covered stranded wire (2 mm overall diameter). Winding details are to be found by studying the drawings.

IN USE

The purpose of VC2 is to lower the coupling of the loop to the receiver. This increases the 'Q' of the 76 metre loop and has the effect of narrowing the bandwidth and increasing the selectivity. The setting of VC2 is therefore very important to cut down interference.

Now, tune to a signal on the band; set VC2 so that its vanes are half meshed; tune VC1 for maximum signal; adjust VC2 for peak in signal. Repeat this until there is no further improvement. A spot will be found where the setting of VC2 gives maximum signal and maximum selectivity. When moving small frequencies i.e. 3.9 to 4 MHz or 6.2 to 6.4 MHz, only VC1 may need adjusting. Do not forget that the loop should also be rotated with its ends facing the transmitting station for maximum strength.

Once correctly set up, you should notice a marked drop in interference and noise compared with say a long wire aerial. The indicated signal may be just down in comparison but due to lower noise, weaker signals will now be received.





PC meets DPRS

written by PC Editor



IN October 1991, a year after PIRATE CHAT commenced publication, I wrote to somebody whose name I had heard mentioned by Dutch pirates very often. This somebody was Derek Taylor and I was writing in an attempt to try and recruit him as a member of my magazine. On October 24th, I received a very nice reply saying that Derek would very much like to start reporting activity of Dutch MW pirates. That first contact I had with Derek was just the first of many. We now write to each other several times a week, exchanging information and Derek is always pleased to help me with any queries. Never have I known anybody so dedicated to the hobby of Free Radio and so it's not at all surprising that while recently in Holland, Derek received a certificate awarding him for outstanding service to the Dutch MW pirates. Listening can begin in the late afternoon and continue until the early hours of the next day and while there are no stations audible, Derek has to reply to all of the mail for the Dutch Pirate Radio Service. You can be sure that Derek will always be listening to MW and hear anything that pops up on the band, be it only for a couple of minutes.

After corresponding with Derek for nearly two years, I decided a few weeks ago that it was about time to meet this famous MW enthusiast.

It was arranged for me to visit Derek and see the PC mailing address at 12 Dorman Road, Preston, on August 18th. I was also to meet Derek's wife, Linda who is mentioned on 183 and 186 metres nearly as much as the man himself!

I arrived in Preston at around midday and entered the DPRS headquarters. After the introductions and something to eat, I was shown to the listening post. It was quite amazing. Here at my QTH, most of the wall space is covered with pirate related material but at the DPRS, every single spare space was covered. Everywhere there were stickers, posters, photographs, cards and of course taking pride of place, Derek's receivers and MW loop.

We talked into the afternoon and I took a look at the numerous DPRS folders, crammed with QSLs from all sorts of MW stations. I wouldn't have believed that one person could collect so many verifications! It was fascinating to take a look at the location in Preston that every Dutch MW pirate has heard of and it was a pleasure to meet Derek and Linda. Every time I write to number 12 in future, I can just picture Derek opening the letter and then replying from the DPRS office.

I only wish that I could have had more time to spend with Derek but I did manage to hear one Dutch MW pirate before I left. This was at around 1720 UTC and a station on 1636 was blasting through with an unbelievable signal! Never, had I heard a Dutch MW pirate signal so early in the evening with such a good signal. However, this occurrence is now regular, since while in Preston, I bought from Derek, a MW loop amplifier, which is amazing! I don't know how I ever managed without one before!

Thank you very much indeed, Derek and Linda for your hospitality and I look forward to meeting you both again soon here at the PC HQ! ■

New regular feature

Chris Feeny's Pirate Thoughts

c/o EPR, 14 Stone Row, Coleraine, Co. Derry, N. Ireland.

Hi and welcome for the very first time to Feeny's page. I hope that this will become a regular and enjoyable institution in your favourite Free Radio magazine; Pirate Chat.

Well, a lot of people in the Free Radio land have the opinion that the so-called relay stations are not real pirate stations because they have no transmitter, take no risks etc . . . But please remember that everyone who wants to run a pirate doesn't have all the possibilities such as the site and so on. There are a lot of relay stations in Europe who produce very entertaining and also professional programmes such as Radio London, Radio Aries . . .

Of course, there are weaker stations but in general, I want to point out that EVERY operator of a pirate station deserves huge respect because we always try to entertain you, the listeners! So come on, show your interest in all stations in the fascinating world of Free Radio and write more letters than you are doing at this present time. If the response from you stays on this extremely low level, a lot of stations will disappear and the consequences will be that the programme and station variety will be gone in the future. Perhaps the low level of activity at this moment is already a sign of this development.

Of course, the conditions are not the very best at the moment but . . .

. . . Another thing I want to talk about is that every station operator who has free air time should write to PC and tell us his conditions. Especially now after the hopefully only temporary close down of the NIRS, this is more than important because some stations (including my EPR) have lost their main outlet. Perhaps therefore in one of the next issues of PC, we can produce a little list about all stations offering free air time?

Some words now about the future of European Pirate Radio. So far, I have received no acceptable relay offer so EPR has temporarily closed down.

Ok then, I hope you have enjoyed my first installment of thoughts and in response, I would certainly appreciate any comments that you may have.

Next time, I will take a look at a few underrated stations such as Radio Benelux from Germany and Wrekin Radio International from England. Both stations are at the moment more or less inactive but I think that it still will be of interest to read something about these two stations.

Until the November issue . . .

73s

Chris Feeny ■

On August 18th, the BBC South-East news programme carried a report concerning the increasing amount of FM pirate activity in the capital. It was commented on how desperate stations are becoming what with hiding aerials in drainpipes and such like. With over 70 pirates heard in the Capital during the summer, we wouldn't exactly think that it's the pirates becoming desperate. ■

SHORTWAVE LOGS AT A GLANCE

ALL TIMES UTC

Sunday 1st August 1993

3910 0015 RADIO X
3910 0037 WAVE RADIO INTERNATIONAL
6211 1427 RADIO ATLANTIS
6219 0931 RADIO PLUTO
6234 0657 JOLLY ROGER RADIO
6234 1048 RADIO MARABU
6234 1200 RADIO WAVES INTERNATIONAL
6236 1412 RADIO PAMELA
6237 0835 RADIO REFLEX
6239 1339 BELGIAN INT RELAY SERVICE
6239 1521 RADIO MERLIN INTERNATIONAL
6255 0854 RADIO EAST COAST COMMERCIAL
6255 1322 RADIO ARMADILLO
6270 0944 RADIO PLUTO
6275 0907 RADIO CALDONIA
6475 0858 RADIO MI AMIGO
6940 1213 WABC
7473 0718 CRAZY WAVE RADIO
7473 0812 RADIO WAVES INTERNATIONAL
7473 0935 SOUTHERN MUSIC RADIO
11400 0835 RADIO WAVES INTERNATIONAL
11400 1002 SOUTHERN MUSIC RADIO

Monday 2nd August 1993

6234 0944 JOLLY ROGER RADIO
6234 1102 BRITAIN RADIO INTERNATIONAL
6301 0901 RADIO PAMELA

Tuesday 3rd August 1993

6301 1758 RADIO PAMELA

Wednesday 4th August 1993

6239 1005 RADIO MERLIN INTERNATIONAL

Friday 5th August

6239 1545 OPTIMOD

Saturday 7th August 1993

3918 2356 STARSHINE RADIO
6205 1608 WEEKEND MUSIC RADIO
6205 1638 HIGHLAND RADIO INT
6219 1136 RADIO PLUTO
6234 0902 JOLLY ROGER RADIO
6239 1911 OPTIMOD
6239 2100 BELGIAN INT RELAY SERVICE
6276 1000 XENON TRANSMITTING COMPANY
6400 1105 RADIO ABILITY

Sunday 8th August 1993

3918 0004 RADIO PIRANA INTERNATIONAL
6206 0916 STAR CLUB RADIO
6211 1115 RADIO ATLANTIS
6234 0918 JOLLY ROGER RADIO
6239 0754 OPTIMOD
6239 1225 BELGIAN INT RELAY SERVICE
6280 0929 OZONE RADIO INTERNATIONAL
6282 0732 RADIO RABBIT INTERNATIONAL
6295 1321 HIGHLAND RADIO INT
6296 1247 WEEKEND MUSIC RADIO
6400 1001 DUTCH PIRATE INTERNATIONAL
6940 1000 WABC
7473 0705 RADIO WAVES INTERNATIONAL

7480 0814 RADIO BENELUX
11400 0841 RADIO WAVES INTERNATIONAL

Wednesday 11th August 1993

6211 1500 RADIO ATLANTIS

Thursday 12th August 1993

6284 1230 RADIO X
6289 1239 RADIO PLUTO

Friday 13th August 1993

3910 0044 WEEKEND MUSIC RADIO

Saturday 14th August 1993

6205 0933 RADIO X
6205 1350 RADIO X
6205 0935 FREE RADIO SERVICE LONDON
6218 1217 RADIO BRIGITTE
6219 0921 RADIO PLUTO
6229 1039 JOLLY ROGER RADIO
6239 0857 CITADEL RADIO INTERNATIONAL
6239 0902 CITADEL RADIO INTERNATIONAL
6239 1412 RADIO SCOTTISH MONTREAL
6242 0647 TRANSATLANTIC RADIO
6255 0858 RADIO EAST COAST COMMERCIAL
6275 2120 RADIO ORION
6400 1104 RADIO ABILITY

Sunday 15th August 1993

3945 0031 RADIO STELLA INTERNATIONAL
6200 0745 RADIO ORANG UTAN
6200 1002 RADIO DR. TIM
6200 1006 RADIO DELTA (Ruurllo)
6210 0916 JOLLY ROGER RADIO
6211 0914 HEAVY DUDE RADIO
6211 1123 RADIO ATLANTIS
6219 1143 RADIO PLUTO
6229 0645 JOLLY ROGER RADIO
6234 0816 JOLLY ROGER RADIO
6234 0916 BRITAIN RADIO INTERNATIONAL
6239 0644 RADIO SCOTTISH MONTREAL
6239 0727 CITADEL INTERNATIONAL RADIO
6239 0929 RADIO MERLIN INTERNATIONAL
6239 1406 BELGIAN INT RELAY SERVICE
6242 0752 TRANSATLANTIC RADIO
6252 0921 RADIO NORTHSEA INT
6280 0929 OZONE RADIO INTERNATIONAL
6285 1033 RADIO LOWLAND INTERNATIONAL
6288 1428 RADIO KRISTAL
6290 1420 RADIO ORION
6290 1449 SIERRA FOXTROT ZERO THREE
6293 1211 RADIO GLORIA INTERNATIONAL
6293 1237 VOICE OF THE GOUTSUFFERERS
6295 0015 RADIO PIRANA INTERNATIONAL
6302 0947 RADIO PAMELA
6302 1417 RADIO PAMELA
6475 1032 WORLD'S GREATEST ANORAK
6940 0851 WABC
6555 0906 RADIO BRIGITTE
7294 0804 CRAZY WAVE RADIO
7294 0819 RADIO EUROPE
7365 1012 BRITAIN RADIO INTERNATIONAL

SHORTWAVE LOGS AT A GLANCE

7375 0941 HOBO
7446 0903 RADIO STELLA INTERNATIONAL
7460 1202 RADIO PANDORA
7473 0748 SUNSHINE RADIO
7473 0931 RADIO WAVES INTERNATIONAL
11400 0641 RADIO WAVES INTERNATIONAL
11400 0749 SUNSHINE RADIO
11413 1129 RADIO STELLA INTERNATIONAL

Saturday 21st August 1993

3910 2336 RADIO X
3910 2347 STARSHINE RADIO
3911 2338 RADIO PACMAN
3912 2341 RADIO PLUTO
6200 1131 RADIO ORANG UTAN
6205 0955 RADIO X
6215 1038 RADIO SELECT
6219 1004 RADIO PLUTO
6220 1019 RADIO SILVERBIRD INT
6239 0753 BELGIAN INT RELAY SERVICE
6239 0948 OPTIMOD
6289 1054 XENON TRANSMITTING COMPANY
6400 1102 RADIO ABILITY
6554 1105 RADIO METEOR
6557 1006 RADIO BRIGITTE

Sunday 22nd August 1993

3910 0051 LEVEL 48
3910 0101 STARSHINE RADIO
6200 0729 RADIO ORANG UTAN
6200 0859 CLANDESTINE LISTENERS CLUB
6205 1207 RADIO METEOR
6205 1255 RADIO SELECT
6206 1218 RADIO JIMMY INTERNATIONAL
6211 1059 RADIO ATLANTIS
6219 1255 RADIO PLUTO
6220 1242 RADIO BRIGITTE
6239 0909 BELGIAN INT RELAY SERVICE
6239 0916 OPTIMOD
6239 1248 RADIO SCOTTISH MONTREAL
6239 1450 RADIO MERLIN INTERNATIONAL
6239 1526 CITADEL INTERNATIONAL RADIO
6242 0728 TRANSATLANTIC RADIO
6277 0940 OZONE RADIO INTERNATIONAL
6289 1246 XENON TRANSMITTING COMPANY
6289 1513 RADIO PIRANA INTERNATIONAL
6295 1600 TEST PIRAAT
6300 1407 SIERRA FOXTROT ZERO THREE
6301 0935 RADIO PAMELA
6301 1452 RADIO PAMELA
6475 0905 WORLD'S GREATEST ANORAK
6555 1404 RADIO SANTANA
6557 1350 RADIO BRIGITTE
6940 0713 WABC
7415 1153 RADIO METEOR

Saturday 28th August 1993

3910 2350 RADIO PIRANA INTERNATIONAL
6205 0924 RADIO X
6215 1324 RADIO SELECT
6219 1043 RADIO PLUTO
6219 1436 RADIO PLUTO

6239 0723 BELGIAN INT RELAY SERVICE
6301 0934 RADIO PAMELA
6400 1102 RADIO ABILITY
6475 0747 WORLD'S GREATEST ANORAK
6940 1118 WABC

Sunday 29th August 1993

6205 0846 RADIO X
6211 0754 RADIO DIAMOND
6211 1142 RADIO ATLANTIS
6215 0741 RADIO SELECT
6234 1029 JOLLY ROGER RADIO
6234 1249 RADIO MARABU
6285 1546 RADIO PIRANA INTERNATIONAL
6289 1558 RADIO PLUTO
6290 1025 XENON TRANSMITTING COMPANY
6290 1619 RADIO SILVERBIRD INT
6293 1118 RADIO PIRANA INTERNATIONAL
6301 1010 RADIO PAMELA
6475 0852 WGAS
6553 0818 RADIO BRIGITTE
6940 0726 WABC
7426 1343 RADIO DELTA (Ruurllo)
7479 0802 RADIO BENELUX

Monday 30th August 1993

6234 0948 BRITAIN RADIO INTERNATIONAL
6255 1017 FREE RADIO SERVICE LONDON
6276 0947 XENON TRANSMITTING COMPANY
6278 1007 FREE RADIO SERVICE LONDON
6292 1358 RADIO ARMADILLO
6475 1002 WORLD'S GREATEST ANORAK
7365 1003 BRITAIN RADIO INTERNATIONAL

Tuesday 31st August 1993

6239 0749 BELGIAN INT RELAY SERVICE

Saturday 4th September 1993

6292 2101 ARMADILLO
6400 1110 RADIO ABILITY

Sunday 5th September 1993

3945 1142 RADIO RANDOM
3945 1200 RADIO STELLA INTERNATIONAL
6205 1009 RADIO X
6206 1039 RADIO JIMMY INTERNATIONAL
6206 1101 RADIO KONTAKT
6210 1013 RADIO SELECT
6211 1101 RADIO ATLANTIS
6219 1035 RADIO PLUTO
6219 1255 RADIO PLUTO
6214 1006 RADIO JIMMY INTERNATIONAL
6229 0904 JOLLY ROGER RADIO
6229 1130 RADIO MARABU
6255 1011 RADIO EAST COAST COMMERCIAL
6277 0904 OZONE RADIO INTERNATIONAL
6293 1300 RADIO GLORIA INTERNATIONAL
6301 0903 RADIO PAMELA
6475 0924 WORLD'S GREATEST ANORAK
6554 1307 RB 58
6940 1005 WABC
7446 1133 RADIO RANDOM
7446 1151 RADIO STELLA INTERNATIONAL
7473 1055 RADIO WAVES INTERNATIONAL

A-Z SHORTWAVE SECTION

compiled by PC Editor

All Times UTC

RADIO ABILITY from central England can be heard every Saturday morning from 1100 using 6400 via ATLANTIS. Anthony Page presents a programme as does Sid Morris and a few other people and close down each Saturday afternoon is at 1500. Various disability related addresses and telephone numbers for a particular area are given on air because the aim of this station is to primarily promote awareness of disability and those afflicted. Response both by mail and telephone has been rather encouraging recently. ADD - 17 Barlborough Road, Clowne, Nr. Chesterfield, Derbyshire, England, S43 4RA.

RADIO ARMADILLO have now started to broadcast on Sundays unlike previously when broadcasts seem to have been only made on weekdays. The station operator now seems to have a variety of crystals to use on 48 metres and during August, in addition to the usual 6292, has also used 6255 and has recently tested on 6210. Signals are usually quite good here and on August 29, a relay of the West Midlands pirate, Exile FM was made. A surprise test transmission was made during the late evening of September 4th using 6292, on which a female presenter was heard! It certainly was nice to hear this, one of the very few females on SW with some quite good music as well! ADD - 4. **RADIO ATLANTIS** is still active every Sunday from 1100 with programmes and the carrier can be heard from 1030. Sid Morris opens up all broadcasts and other presenters include Spencer Davis. Wednesday afternoon broadcasts have now stopped. Signals are usually good from this heart of England pirate. Various problems have recently been suffered with the station's aerial which has been frequently going missing. This is thought to be the work of a local FM pirate. ADD - 52 Hackwood House, Hartlebury Road, Oldbury, West Midlands, England, B69 1EG.

BELGIAN INTERNATIONAL RELAY SERVICE is the set-up that you can hear on 6239 each weekend. The BIRS is the main station behind all of the relays that you will hear on the channel and their own promotional programmes can be heard inbetween relays, similar to the old NISWRS broadcasts. ADD - 7.

RADIO BENELUX is one of Germany's underated pirates which our new recruit, Chris

Feeny will be looking at in more detail in the next PC. However, the station has been heard during August with programmes in German and English on 7479. If anybody from the station sees this issue of PC, I wonder if you received my letter that I wrote to you a long time back? Perhaps you did and your reply has got lost or perhaps my letter got lost? ADD - 4.

RADIO BRIGITTE from Belgium can be heard on a fairly regular basis, usually using 45 metres, somewhere around 6555. Signals here are sometimes quite good and modulation has improved during recent months. ADD - P.O. BOX 10, 7954 ZG Rouveen, Netherlands.

BRITAIN RADIO INTERNATIONAL were active using their own transmitters on Bank Holiday Monday 30th August. Both 7365 and 6234 were used for BRI Overdrive with rock music. On 41 metres, 50 watts was used and on 48 metres, the 130 watt rig would only work satisfactorily at around 80 watts. This therefore is to be the power used on 6 MHz until the problem can be rectified and full power can once again be used. Roger and Jayne should have celebrated their 13th birthday back in June but it will now be going ahead on the 4th Sunday of September, the 26th. Programmes may last for up to six hours from 0800-1400 and a chat segment could well be aired where Roger will talk to various people on the telephone and find out their thoughts concerning the current Free Radio scene. Altogether, the broadcast should sound quite good and we'll be listening! ADD - 1+3.

RADIO CALDONIA from the Rotterdam area of the Netherlands has been heard during August on the usual frequency 6275. Station operator, Herman sends out a nice set of souvenirs if you write in to the station. You will receive various stickers, a photograph etc so if you hear CALDONIA, do write in! ADD - P.O. BOX 763, 3100 AT Schiedam, Netherlands.

CITADEL INTERNATIONAL RADIO are active fairly regularly, always via the BIRS on 6239. Programmes and presenters are probably from MERLIN as things sound very similar. ADD - 7. **CLANDESTINE LISTENERS CLUB GERMANY** was as we stated they would be in the last PC, active on August 22nd. The programme via ORANG UTAN on 6200 began at 0859 and was as entertaining as ever. Listeners letters were

read out, talk about the CLCG magazine was made and the usual features were included. Perhaps the station op could let us know when the next broadcast will be? ADD - P.O. BOX 540101, D - 47151 Duisburg, Germany.

CRAZY WAVE RADIO from Germany has been heard a couple of times recently both via RWI and also RADIO EUROPE, the latter being on 7296. ADD - P.O. BOX, 202, 36172 Bebra, Germany.

RADIO DELTA (Ruurlo) has made a few broadcasts recently using a variety of channels and power exceeding 1000 watts! Station operator, Gertie has noticed though that what has become his regular channel is becoming a little congested with stations signing on and off regularly. Therefore, he is thinking of testing on some new channels. Perhaps 6815 and 7415 might be used. Keep an ear out on these frequencies and don't forget Gertie, please do give me a call when you are testing! ADD - P.O. BOX 65, 7260 AB Ruurlo, Netherlands.

RADIO DIAMOND from the very top of the Netherlands was active for a couple of hours on August 29th as station op, Rob, had planned. Although due to the propagation conditions, we could not hear the signal, it was heard on 6211 in other parts of Europe. ADD - P.O. BOX 3037, 1780 GA Den Helder, Netherlands.

DR. TIM RADIO have been heard again during August, via the usual outlet on 6200. We're not sure when the next broadcast will be but 6200 is likely to be the frequency. ADD - 4.

DUTCH PIRATE INTERNATIONAL is actually RADIO DELTA from Elburg but this alternative ID is sometimes used when tests are being made. Therefore, Jan must have been testing recently because this ID has been used! Frequencies to check for this station are 6203, 6275, 6400 and 7426, although various alternative band broadcasts have been made during past months. I should be writing to Jan in the near future so in the next PC, I should have all of the latest station news. ADD - P.O. BOX 41, 8080 AA Elburg, Netherlands.

RADIO EAST COAST COMMERCIAL made a special MOA broadcast on August 14th consisting of various offshore recordings. 6255 was used and this now fixed channel for RECC was also used on the first Sunday of August as it is every first Sunday for the DX programme. On September 5th, programmes were aired one hour later than they should have been but the signals were superb here. Oh yes, Norman, while I think about it, you still haven't replied to two letters that I've sent you! ADD - K Flats, 9-11 Church Street, Cromer, Norfolk, England, NR27 9ER.

SHORTWAVE NEWS

FREE RADIO SERVICE LONDON, radiating from the capital are still active fairly regularly on a variety of 48 metre frequencies. As well as weekend broadcasts, this station can also sometimes be heard on weekdays. Frequencies to watch for FRSL are 6205, 6255, 6278, and 6288. Signals are very good and the programmes consist of jingles and pirate recordings.

RADIO GLORIA INTERNATIONAL just as the VOICE OF THE GOUTSUFFERERS have been quiet recently with only the occasional QSO or cq call. ADD - 5.

HEAVY DUDE RADIO have been active during August on the usual 6211 outlet. The station op should now be back at his own QTH so we can expect live programmes once again soon, unlike the pre-recorded shows aired recently. ADD - c/o Stefan Printz, Kännärsvägen 13D:220, 22646 Lund, Sweden.

HIGHLAND RADIO INTERNATIONAL is a new addition to the SW bands from Scotland, despite the rather distant address. Using an amateur transceiver and a power of around 50 - 100 watts, the station was first active on August 7th. Signals were inaudible at our location but have been heard elsewhere. The programmes we know do sound very good and perhaps we will hear the station when current propagation conditions settle back to the norm. ADD - 126 BOX 78, Goodna, Queensland, Australia.

RADIO JIMMY INTERNATIONAL were heard QSOing on September 5th using 6214 and 6206. We were listening to the QSO and heard some quite nice signals from JIMMY, peaking at 34443. Not bad for just low power from this fine Dutch pirate. ADD - P.O. BOX 102, 7360 AC Beekbergen, Netherlands.

JOLLY ROGER RADIO are still very regular on SW using mostly 6234. A couple of tests have also been made on 7375. The intention for the future is to run the station HOB0 on 7 MHz and JRR on 6 MHz. While JRR airs country music, HOB0 will be playing blues and the like and can be contacted via the same address as JRR. Operator, Joe Vincent can now broadcast on 6 MHz relatively free from interference since DLR has disappeared from 6226. ADD - P.O. BOX 39, Waterford, Eire.

RADIO KONTAKT is a station broadcasting from north-west Netherlands and was heard QSOing on September 5th. We noted fairly good signals at our QTH on 6206 and have attempted to get a letter through to the station operator so hopefully we will have more info next time.

RADIO KRISTAL was active August 15th using 6288. We're not too sure of this station's origin but some weeks back, we were told that the station had been QSOing with OZONE with superb modulation and signal to match.

LEVEL 48 was heard by our good friend Francis Mougenez in France on August 22nd. He heard them calling cq on their usual 76 metre frequency of 3910. Although STARSHINE RADIO came up with a reply, Pirate Andy didn't return to the band himself. ADD - 2.

RADIO LOWLAND INTERNATIONAL are back on SW following their raid a few months ago! It's good to see this line station back so quickly with the good signals and modulation which were prominent before the raid. 6285 is the frequency as before and music shows consist of the mainly rap format again. It's good to hear you all back on the air from the Netherlands and let's hope that no more raids take place. ADD - P.O. BOX 39, 2300 AA Leiden, Netherlands.

RADIO MARABU have not been heard with their own transmitter recently but have been relayed by JRR on 6234. Don't forget that when they operate with their own equipment from Germany, the frequency used is 7484. Perhaps the station operator could send us some information and the latest programme schedule for publication in PC? ADD - 4.

RADIO MERLIN INTERNATIONAL are not as regular on 6239 as they were some months ago when the NISWRS was in action but they can still be heard from the county town of Essex every now and again. Programmes are all pre-recorded but RMI has been heard live during August while QSOing with RADIO PAMELA. ADD - 7.

RADIO METEOR from the Netherlands have been active a few times during August using a variety of channels. Operator, Jean uses around 20 watts of power and signals are usually pretty good here in the UK. I wonder, Jean, could you please drop me a few lines with any information that you may have as regards the station? I haven't heard from you for a while. AD - P.O. BOX 71, 7720 AB Dalfsen, Netherlands.

RADIO MI AMIGO were active on the first Sunday of August using 6475 as usual. As the main presenters, Terry Phillips and Andy Walker are now both involved with the new station WGAS, we wonder what is to happen with MI AMIGO. Will one of these stations die a sudden death or will they both continue? Anyway, MI AMIGO is usually very strong here and Mr. Walker's show is always good for a laugh! ADD - 4.

RADIO NORTHSEA INTERNATIONAL from Germany, who started off life via the NISWRS on 6239 are now as they have been for some time, using 6252 with their own transmitter. Signals in the UK are fair and if you write to the station, a nice QSL card, letter and information sheet should be yours. ADD - 4.

OPTIMOD is the monthly media magazine for shortwave enthusiasts. This idea was founded in June of this year and is operated by Jim Douglas. A new programme is produced each month with radio news; past and present. The OPTIMOD studio is quite nicely equipped with a ten channel mixer, CD player, tape decks etc and the programme is quite interesting to listen to. Thanks for the QSL Jim and keep up the good work. I've heard each programme so far! ADD - 7.

RADIO ORANG UTAN is still giving us excellent signals at least once a month on every third Sunday and other Sundays as well. Freddy has recently received a letter from Estonia in Russia, which he is very pleased with. This can go in the collection along with mail from Australia. This Dutch pirate which started out in 1977 and runs 150 watts on 6200 sure has been heard more or less all over the world! Don't forget that Freddy always tests before fully programmed shows on the Saturday before at around 1130. We now have 24 QSL cards from ORANG UTAN which surely must be more than anybody else?! ADD - P.O. BOX 114, 7040 AC s'Heerenberg, Netherlands.

RADIO ORION have been heard a couple of times during August and on the 14th, a night-time transmission was made on the usual 6275. On this, signals were quite good here and a telephone line was announced. People were ringing in and were consequently being mentioned on the air. Station op, Mike Wilson has also QSOed with RADIO PAMELA recently, using his old frequency of 6290. ADD - 6 Worcester Street, Wolverhampton, West Midlands, England, WV2 4LD.

OZONE RADIO INTERNATIONAL is still giving the UK pretty good signals most Sunday mornings from around 0930 and have recently adopted a new channel. 6277 seems to be the new spot for Prince Terry's station and it might be worth checking 6283 because he also has a crystal for this frequency which came from RADIO PANDORA. The weekly programme from Gary Stevens that we mentioned in the last issue is called Market Place and listeners are given the chance to purchase all sorts of radio related merchandise from both Gary and various

other sources. On September 5th, Gary was actually live from the OZONE studio in Eire, presenting his show while on holiday. On that day, the signal was excellent here, partly due to Gary and Mr. Ozone making some aerial adjustments. Previously, a half-wave dipole not too high off the ground was used. Now though, an inverted V at around 35-40 feet is being used and this together with the new frequency is giving some superb results. Gary commented while on air that the OZONE studio looked just as it should; all sorts of electronic and technical gear everywhere and records all over the place! Oh yes, Gary, thanks for the greetings on that broadcast! ADD - 1.

RADIO PACMAN, my good friend from the Netherlands has been active on 76 metres during August, on the usual channel of 3911. I hope that you now have that photo, Mr. Pacman and that everyone likes it! ADD - P.O. BOX 103, 8120 AC Olst, Netherlands.

RADIO PAMELA has been nice and regular on SW during August. In the last PC, we said that Steve Most had just built a new 20 watt QSO rig. Well, this has been used to air both programmes and QSOs recently. Steve has been heard on 6301 (sometimes drifting slightly) on a variety of days with pre-recorded programmes. Recent transmissions have featured listeners letters including one for a broadcast on 7428. Well, whoever it was that wrote this letter, you were actually listening to PANDORA and not PAMELA! Steve Most tells me that he won't be as regular on SW for a while now due to other commitments but when he does broadcast on SW, the service is really an extended branch of the FM outlet. Steve wants to please listeners with music and not DX news and logs like many other stations. ADD - 7.

RADIO PANDORA has at last hit the airwaves, following our mention of the station way back in July 1992! Various broadcasts have taken place within 41 metres but only a couple of letters have been received giving very weak SINPOs. 7428 was originally used but operator, Steve St. John now has a crystal for 7458 which is to be used in future. Also, a change of site is hopefully to be made so as to get away from the nosey people who come up asking questions! Do listen out for the station and drop Steve a line or two. ADD - 4.

RADIO PIRANA INTERNATIONAL has recently received some more letters from South America following various transmissions on 13 MHz. All quite amazing! Jorge Garcia has also made some more broadcasts for Europe and we heard

him giving PC a good old plug on August 28th. Thanks a lot Jorge! Perhaps you can give me a telephone call some time for a chat? It would be nice to speak to you again! ADD - c/o Stefan Printz, Kämnärvägen 13D:220, 22646 Lund, Sweden.

RADIO PLUTO has been as regular as ever on 48 metres during August and has even made some weekday broadcasts and a transmission on 76 metres. This Dutch station transmits mainly with QSO contacts and when conditions are right, can and has recently given some very nice signals into the UK. Of late, the original transmitter used by the station back in 1988 has been used, which gives at the moment, around 40-50 watts. It is possible to obtain up to 100 watts but there are presently problems in achieving such an output power. The station operator seems to have gained a new channel recently in the form on 6289 where a programmed test was made on August 24th during the evening. In addition to this frequency, 6219 and 6270 have also recently been used as well as 3912 in the 76 metre band. AD - P.O. BOX 103, 8120 AC Olst, Netherlands.

RADIO RABBIT INTERNATIONAL are still active on 48 metres on a regular basis and frequencies to keep an ear out on are 6252 and 6288. ADD - 2.

RADIO RANDOM was heard by us for the first time on September 5th, via STELLA. This is a new French relay station and the presenter you will hear is Robert On Mike. He hosts a variety of programmes such as The Anything Show, The Rock Show, The Folklore Show, The Jazz Show etc. Letters can be written to the station in either English, German, Spanish or French and correct reports by letter will be verified by a QSL sheet. Programme duration will be anything from 30 minutes to 90 minutes. The station name was chosen while Robert was preparing an experimental programme. Because he couldn't think of a name, he said 'You are listening to a random radio station' and that name stuck! ADD - 5.

RB 58 was heard broadcasting from Belgium on September 5th. The operator was calling cq on 6554 for any Italian amateurs. This part of SW is a popular place for the Italians and they can often be heard in side-band. RB 58 sounded very much like RADIO BRIGITTE and the location given corresponds with that of BRIGITTE.

RADIO SANTANA from good old Holland have been heard during August, on the usual 6555. Signals are fair here from this friendly pirate. ADD - P.O. BOX 46, 7160 AB Nede, Netherlands.

RADIO SCOTTISH MONTREAL (CRSM) from North America is still being relayed into Europe on 6239 and has been heard a few times recently. During their broadcast of August 21st and a very interesting programme, the presenter said that he would like to receive some letters from listeners who are not DXers and that studio copies of programmes from the station are available. 'The Voice of Free Scotland on SW' announces in various languages and this is a pirate worth listening to for programme content. ADD - P.O. BOX 109, Blue Ridge Summit, PA 17214, USA.

RADIO SELECT is a new Dutch set-up that has been active on numerous occasions during August, using a variety of frequencies. The place to look out for this QSO station is at the bottom end of 48 metres, between 6200 and 6220.

SIERRA FOXTROT ZERO THREE are still using their transceiver to QSO on SW and the station is likely to pop up anywhere; 41 m, 48 m, 76 m, wherever a station is that Brian wants to QSO with. This is only a QSO operation and so no mailing address is available.

RADIO SILVERBIRD INTERNATIONAL returned to SW during August, following many months of inactivity due to antenna problems. Previously, a half-wave dipole was causing considerable interference but Jos is now using a groundplane antenna and things are much better. We first heard the station on the 21st using 6220 and QSOing with RADIO X and RADIO PLUTO. RSI was using 40 watts but the signal here wasn't too good. However, it is very nice to hear the station on air since I met Jos back in July. A night-time broadcast has also been made and I hope to hear much more from this fine Dutch pirate now that the antenna has been changed. ADD - P.O. BOX 13, 7595 ZG Weerselo, Netherlands.

SOUTHERN MUSIC RADIO from New Zealand are still active every now and again via RWI on 7473 but no longer on 6239, since the close of the NISWRS and the opening of the BIRS. ADD - 3.

STARSHINE RADIO has been active during August using 3 MHz. If you want to hear this interesting continental pirate, 76 metres on a Saturday night is the best time and place to check. Signals vary from being in AM and SSB but are usually quite strong here in the UK. ADD - SRS (Swedish Radio Service), Ostra Porten 29, S-442 54 Ytterby, Sweden / DPRS, 12 Dorman Road, Preston, England, PR2 6AS.

RADIO STELLA INTERNATIONAL can be heard weekly from Saturday night through until

early Sunday afternoon on 3945, 7446 and 11413. Although we have not heard the 11 MHz outlet here, 7446 is good and we recently heard 3 MHz during the afternoon! Programmes hosted by Jock Wilson consist of Stella Dx and listeners letters and name checks. ADD - 82 Pentland Place, Kircaldy, Fife, Scotland.

TEST PIRAAT is as the station name suggests, a test station which has been operational on SW a couple of times during August. Only very low power has been used.

TRANSATLANTIC RADIO apparently originates from the Netherlands and has been heard a few times using 6242. The best time to listen out for this one is at around 0700-0800. ADD - P.O. BOX 4427, 3006 AK Rotterdam, Netherlands.

VOICE OF THE GOUTSUFFERERS haven't sent us any insulting letters recently! What's up lads? Broadcasting levels have been low recently as well but VOGS is active every now and again. Frequencies to check are 6210, 6255 and 6293.

WABC from Eire have appeared on the rather unusual frequency of 6940 on numerous occasions during August. The service audible on SW is thought to be some sort of relay from the FM outlet but we are not too sure. Perhaps we will have more details next time around?

WAVE RADIO INTERNATIONAL from Sweden have been heard during August, using 76 metres and 3910, which is the usual 3 MHz outlet for this station. ADD - c/o Stefan Printz, Kämnärsvägen 13D/220, 22646 Lund, Sweden.

RADIO WAVES INTERNATIONAL are still active each weekend with parallel programmes and station relays on 7473 and 11400. Peter Hills is due to celebrate the station's 10th birthday in November so listen out for some special programmes. However, we have sadly received information that together with this triumph comes the news that RWI is going to be closing down. Regular programmes are to cease at the beginning of 1994 and by Easter of next year, the station will have totally closed down. This will leave quite a gap on SW because for as long as I have been a listener of the international pirates, RWI has been on the band more or less every weekend. The station will be missed and I wish Peter all the best for the future and hope that he will still remain a keen SW listener. ADD - 3.

WEEKEND MUSIC RADIO has not been heard with any programmes during August but has made the odd cq call and QSO. I still look forward to when Jack is operating once again as he used to with marathon Saturday night transmissions! ADD - 6.

RADIO WITHOUT BORDERS

INTERNATIONAL were the first SW pirate out of Russia and have been audible on both 48 metres and 76 metres very regularly since they started. Unfortunately, we have the news that the station has been busted. The raid happened while the station was off air on Tuesday July 10th. Police arrived at the site and the transmitter and studio equipment was confiscated. Unfortunately at this present time we have no more information but we will try and find more details for next time. This raid will also see the hopefully only temporary closure of close pirate friend ROMANTIC SPACE RADIO, who, when on air are relayed via RWBI.

However, I'm sure that these pioneers of Russian SW piracy will return sooner or later! ADD - P.O. BOX 29, Moscow 109444, Russia. **WORLD'S GREATEST ANORAK STATION** is the latest project undertaken by the London crew; Andy Walker, Terry Phillips, Dave Martin etc. WGAS has made several tests with variable powers from 13 watts to 80 watts and was officially launched over the UK Bank Holiday weekend. From the evening of August 27th, programmes ran through until late 29th. Everything was pre-recorded on a four hour tape and the frequency used was 6475. Among the voices heard were Jack Russel (WMR), Martin Davis (FAX) and Steve Conway (CAROLINE).

Andy Walker was also on air with his Radio Dayz programme, featuring an interview with Tom Stone of CAROLINE INT. WGAS is to continue on a weekly basis with the same voices as over the Bank Holiday weekend. Stand by your radio sets on September 19th because this is 'Judgement Day.' Steve Conway is going to be telling all about RADIO CAROLINE and the insider who destroyed the station so don't forget to listen. If you do write in to this one, as long as you send £1/\$1/IRCx3, you will receive station information, a QSL card, a colour photograph and a car sticker. ADD - 3.

RADIO X from Rotterdam in the Netherlands has returned more regularly to 48 metres now and has been heard numerous times during August. The station has also been active on 76 metres during the last month. Around 15 watts is used and signals are fair at our location.

Thanks very much Jan for playing our promotions - greatly appreciated! ADD - P.O. BOX 102, 7360 AC Beekbergen, Netherlands. **XENON TRANSMITTING COMPANY** has made a return to SW during August and has made various tests and full broadcasts. One of the latter was made on the 7th using 6275 but

nobody seems to have heard anything except the station operator who gave us this log! On Bank Holiday Monday the 30th August, a pre-recorded show was aired that should have been played on the day before but was not due to the long skip conditions. Op, Matt Roberts also went live for a short time and said that he didn't want to stay on the band for too long. The recent inactivity from XTC has been mainly due to a lack of interest. Matt enjoys listening to stations such as ORION and SUBTERRANEAN SOUNDS and since these haven't been active too often recently, neither has XTC. ADD - 4.

ADDRESSES USED FOR SHORTWAVE SECTION:

- 1) 32 Victoria Road, Salisbury, Wiltshire, England, SP1 3NG.
- 2) P.O. BOX 386, 5900 AJ Venlo, Netherlands.
- 3) B.P. 130, 92504 Rueil Malmaison, Cedex, France.
- 4) P.O. BOX 220342, 42373 Wuppertal, Germany.
- 5) P.O. BOX 293, Merlin, Ontario, Canada, N0P 1W0.
- 6) 14 Stone Row, Coleraine, County Londonderry, Northern Ireland, BT52 1EP.
- 7) P.O. BOX 1218, Chelmsford, Essex, England, CM1 4BD.

CONTRIBUTORS and SOURCES

Radio Delta (Ruurlu)
Jolly Roger Radio
Optimod
Radio Pamela
Radio Pandora
Radio Orang Utan
Radio Pluto
Radio Silverbird International
Test Piraat
Weekend Music Radio
World's Greatest Anorak Station
Xenon Transmitting Company
Jack Milner
Francis Mougenez
Neal West
David Williams
Free Dx (various) ■

PIRATE CHAT

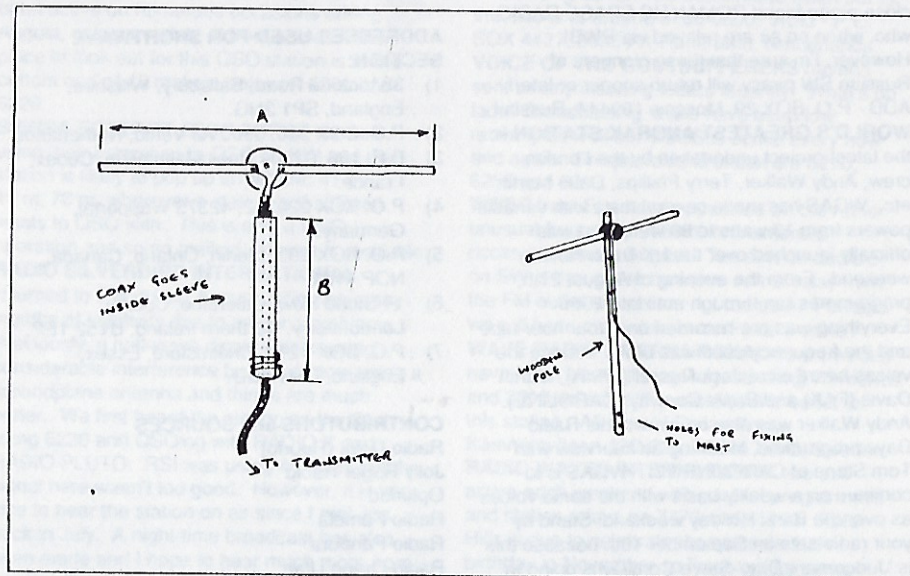
If you haven't subscribed yet,
then do it today!

Inexpensive but Effective Antennas

written by Angel FM

DURING the last few months, we have received several letters from the operator of Angel FM in Hampshire. These have contained some very interesting ideas for construction of transmitters, aerials etc. For these, I must thank Mr. Angel very much indeed, also for the nice comments, stickers and the tape - thanks very much! Well, I was thinking that rather than keep all of these ideas to myself, I might as well share them with the rest of Europe's DXers. In this issue, here a couple of ideas for the inexpensive building of aerials:

DIPOLE



- Advantages** - easy to build, portable, can be made from scrap.
Disadvantages - horizontal, non-vertical, must be mounted away from metal mast.

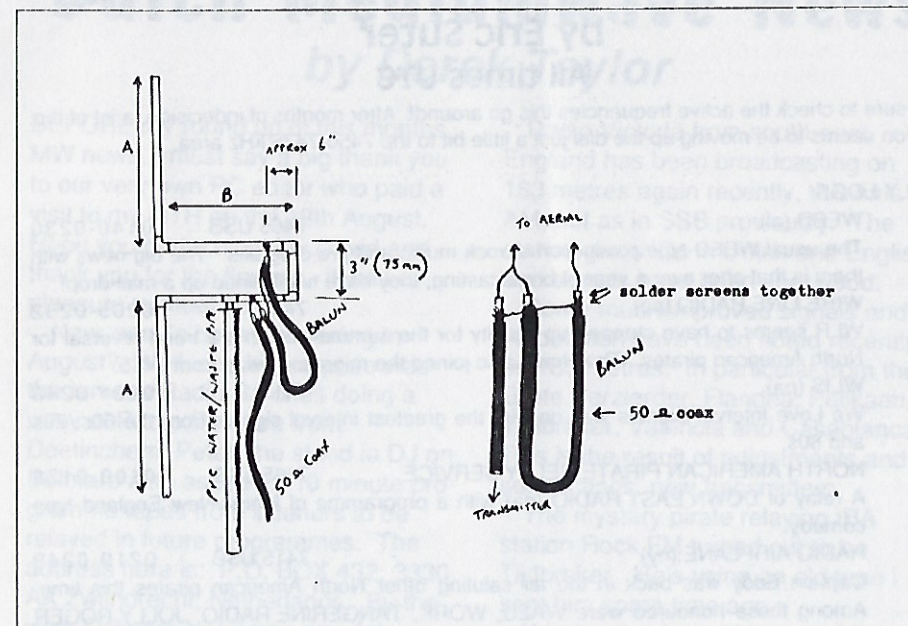
Dipole centre can be an old TV aerial connector box. Dipole elements can be any rigid metal tube. Sleeve B is the metal tube.

Length A = $150 \times \text{by } 0.95 + \text{by transmitting freq.}$ For example, for 105.20 MHz, $150 \times 0.95 + 105.20 = 1.35$ metres.

Length B = $150 + \text{by transmitting freq. and then } + \text{by two.}$ For example, for 105.20 MHz, $150 + 105.20 + 2 = 0.71$ metres long.

The sleeve B is a balun to match the coaxial cable to the aerial; it is not connected to anything at the aerial end but is connected to the outer screen of the coax, at the bottom end. My method is to strip away an inch of outer PVC from the coax at the appropriate spot, tightly wind several turns of bare copper wire around to make a good contact and then join the bare wire to the sleeve by either winding it round or jubilee clipping. The whole thing can be fitted to a wooden dowel or broom stick which should be varnished before outdoor mounting.

SIMPLE COLLINEAR



- Advantages** - easy to build, omnidirectional, good gain.
Disadvantages - quite large, has to be mounted on a plastic pole.

METHOD

Make from 15 mm of copper plumbing pipe + four 15 mm solder ring copper elbows + one 15 mm solder ring copper tee piece.

Length A = $150 \times \text{by } 0.97 + \text{by your transmitting freq.}$ For example, for 105.20 MHz, $150 \times 0.97 + 105.20 = 1.38$ metres long.

Length B = $150 \times \text{by } 0.95 + \text{by transmitting frequency and } + \text{by two.}$ For example, for 105.20 MHz, $150 \times 0.95 + 105.20 + 2 = 0.68$ metres long.

Length of balun loop = $150 \times \text{by } 0.66 + \text{by transmitting frequency.}$ For example, for 105.20 MHz, $150 \times 0.66 + 105.20 = 0.94$ metres from soldered screen to soldered screen.

Feed points are approx. 6" in (see drawing) and can be found by the lowest SWR reading. Join cable to aerial with jubilee clips and varnish the whole thing. ■

North American Roundup

by Eric Suter

All times UTC

Be sure to check the active frequencies this go around! After months of indecision, a lot of the action seems to be moving up the dial just a little bit to the 7450-7475 kHz area.

JULY LOGS

- 3rd WEED (al) 7465 USB 0140-0230
The usual WEED-type production of rock music and pro-drug bits. The big news with them is that after over a year of broadcasting, they have finally lined up a mail-drop!
- 3rd WIRE LINE RADIO (pa) 7450 0205-0252
WLR seems to have stepped up activity for the summer months; a trend reversal for North American pirates. They have also joined the migration away from 7415.
- 3rd WLIS (pa) 7413 0231-0248
We Love Interval Signals was on with the greatest interval signals from the 60s, 70s and 80s.
- 4th NORTH AMERICAN PIRATE RELAY SERVICE 7465 LSB 0100-0129
A relay of DOWN EAST RADIO (pa) with a programme of Maine/New England type comedy.
- 5th RADIO AIRPLANE (ny) 7415 USB 0219-0249
Captain Eddy was back in the air saluting other North American pirates this time. Among those honoured were WAZU, WORK, TANGERINE RADIO, JOLLY ROGER and RADIO USA.
- 10th WBZA (ny) 25500 USB 1617-1620
George Washington, CEO of Westinghouse Broadcasting has been testing at this time And frequency (25500 USB 1600-1700 UTC) but with little success so far.
- 17th RADIO FLUFFERNUT (on) 7413 2112-2121
DJ The Announcer doing a programme of easy listening type rock. From reports to Pirate Pages, it seems as if they repeated this show several hours later.
- 19th OMEGA RADIO (ny) 7414 USB 0001-0010
Dick Tator was playing christian rap music of all things!
- 25th SECRET MOUNTAIN LABORATORY (ny) 7464 0455-0605
The usual mellow folk and blues type format.
- 25th VOICE OF LARYNGITIS (ny) 7416 2230-2300
Repeat of their June broadcast featuring The Pirate Busters.
- 25th PIRATE RADIO BOSTON (ma) 6250 2336-2353
Announced that this was their first anniversary programme. Not widely reported but it is nice to see some activity on 48 metres on this side of the pond.
- 31st WJLR (pa) 7415 DSB 0237-0259
Captain Crook with his regular rock format but the interesting thing about this show was that it was a double sideband stereo broadcast.

MAILDROPS

- al P.O. BOX 605, Huntsville, AL 35804, USA.
ma P.O. BOX 146, Stoneham, MA 02180, USA.
ny P.O. BOX 452, Wellsville, NY 14895, USA.
on P.O. BOX 293, Merlin, Ontario, Canada, NOP 1W0.
pa P.O. BOX 109, Blue Ridge Summit, PA 17214, USA. ■

Dutch Mediumwave News

by Derek Taylor

BEFORE my round up of this months MW news, I must say a big thank you to our very own PC editor who paid a visit to my QTH on the 18th August. Hope you had a nice day David and thank you for the flowers. It was a pleasure to meet you.

Now, what's been happening in August? Well, one big surprise was the famous Radio Barones doing a relay of Radio Delmare from Doetinchem. Peter, the stand in DJ on Delmare also asked for 10 minute programme tapes from listeners to be relayed in future programmes. The address here is: P.O. BOX 432, 3330 AK Zwijndrecht, Netherlands. By the way, Delmare has some new fab photo QSL cards so send him a report. He is also the famous Dutch MW mobile pirate.

Noted on the band with a good signal recently was Radio Variet from Enschede. The address here is P.O. BOX 107, 7580 AC Losser, Netherlands or of course, direct via the DPRS at 12 Dorman Road, Preston, England, PR2 6AS.

Radio Kontakt popped up on the band recently using only 20 watts! A fair signal was heard in Preston and he was very surprised to get my taped report.

Fairly new is Partizaan, operating in co-operation with the Oude Pelikaan. Location is given as Germany.

Another Dutch pirate now using jingles in English is Nova International on 1404 kHz. This is just an alternative ID for Nova 4 and the address is still P.O. BOX 29 in Staphorst or direct via the DPRS.

Radio Victoria from south-east England has been broadcasting on 183 metres again recently, this time in AM, not as in SSB previously. The station gives IDs in Dutch and English and signals have been very good.

Some much improved signals and modulation have been noted recently on 183 metres. In particular from the Grote Verzierder, Flandria, Pelikaan, Tijdbreker, Valencia and Casablanca. This is the result of adjustments and in some cases, new transmitters.

The mystery pirate relaying IBA station Rock FM turned out to be Tijdbreker. He's using an old tape I sent him some time ago.

Keep a check on 183 metres in September and October because a couple of one off short relays are expected and will give you the chance to hear some rare low power Dutch MW pirates.

Oh yes, try checking out 183 metres at around 1700 UTC because both I and the PC editor have heard some very good signals even this early on just recently. You will often hear stations doing short tests etc before full broadcasts.

You might be interested to know that I have just received my 1000th MW QSL! It came from new MW pirate, Eskimo, heard on 183 metres recently. My QSLs have come from all sorts of stations from all over the world but they are all for MW!

Ok then, not so many logs this time. But still a few interesting catches. Till the next time.

73s Derek

DUTCH MEDIUMWAVE NEWS LOGS

1398	MAGNEET	07/8	1636	BARONES	05/8
1509	BLACK ROSE	16/8	1636	BULDOG	05/8
1603	TWENTSCHE RAKKER/ TUINMAN/BLITZKIKKER	29/8	1636	MEXICANO	06/8
1605	STORMVOGEL	04/8	1636	BARONES	06/8
1605	SAPPORRO	08/8	1636	NOOITGEDACHT (A)	06/8
1606	BILLY DE BLUFFER	04/8	1636	HOLLANDIA	07/8
1606	TEXTA COWBOY	01/8	1636	SANTANA	07/8
1606	WALDOLALA	06/8	1636	BARONES	07/8
1606	TEXTA COWBOY	08/8	1636	SYLVANIA	07/8
1606	SAMSON	10/8	1636	ANTONIO	08/8
1606	807	22/8	1636	PELIKAAN	08/8
1606	STORMVOGEL	23/8	1636	SYLVANIA	08/8
1606	TEXTA COWBOY	29/8	1636	NOOITGEDACHT (A)	09/8
1608	NOVA INTERNATIONAL	20/8	1636	BARONES	10/8
1608	HENNIE VELDWIJK	23/8	1636	BULDOG	10/8
1609	TUINKABOUTER	11/8	1636	TIJDBREKER	14/8
1611	TUINMAN	05/8	1636	PELIKAAN	14/8
1612	WALDOLALA	22/8	1636	NOOITGEDACHT (A)	14/8
1612	BONTEKOE/PANTER	29/8	1636	BARONES	14/8
1613	WALDOLALA	21/8	1636	NOOITGEDACHT (A)	15/8
1613	WALDOLALA	03/9	1636	BARONES	15/8
1613	WALDOLALA	04/9	1636	TIJDBREKER	15/8
1621	PEDRO	30/8	1636	PELIKAAN	15/8
1623	PEDRO	30/8	1636	PEDRO	17/8
1631	PELIKAAN	05/8	1636	GROTE VERZIERDER	18/8
1632	PEDRO	03/8	1636	BARONES	19/8
1632	PELIKAAN	06/8	1636	PELIKAAN	19/8
1633	MINERVA	20/8	1636	NOOITGEDACHT (A)	19/8
1633	TOEKOMST/JOKER	29/8	1636	VROLIJKE MIJNWERKER	19/8
1634	PELIKAAN	07/8	1636	PARTIZAAN	20/8
1634	SCHIMANSKI	12/8	1636	TIJDBREKER	20/8
1634	PARTIZAAN	28/8	1636	BARONES	20/8
1634	TOEKOMST	02/9	1636	TIJDBREKER	21/8
1634	CONCORDIA/STER	04/9	1636	NOOITGEDACHT (A)	21/8
1635	BEER	01/8	1636	NOOITGEDACHT (A)	22/8
1635	SCHADUWJAGER	09/8	1636	TIJDBREKER	22/8
1635	VROLIJKE MIJNWERKER	09/8	1636	PELIKAAN	23/8
1635	PELIKAAN	09/8	1636	TIJDBREKER	23/8
1635	OUDE MONTECARLO	20/8	1636	NOOITGEDACHT (A)	23/8
1635	THORELINE	20/8	1636	UTOPIA	23/8
1635	BULDOG	22/8	1636	STRAALJAGER	24/8
1635	SCHADUWJAGER	30/8	1636	NOOITGEDACHT (A)	24/8
1636	BLONDE ALE YLI	01/8	1636	TIJDBREKER	24/8
1636	UTOPIA	02/8	1636	BARONES	24/8
1636	NOOITGEDACHT (A)	02/8	1636	HOLLAND	25/8
1636	DIKKE BETTA	03/8	1636	TIJDBREKER	25/8
1636	NOOITGEDACHT (A)	03/8	1636	TIJDBREKER	27/8
1636	BARONES	03/8	1636	BARONES	28/8
1636	NOOITGEDACHT (A)	04/8	1636	PELIKAAN	28/8
1636	SPANNINGZOEKER	04/8	1636	NOOITGEDACHT (A)	28/8
1636	UTOPIA	04/8	1636	NOOITGEDACHT (A)	29/8
1636	NOOITGEDACHT (A)	05/8	1636	BARONES	29/8
			1636	PELIKAAN	29/8

DUTCH MEDIUMWAVE NEWS LOGS

1636	SYLVANIA	29/8	1638	BLAUWE BULDOG	02/9
1636	SPANNINGZOEKER	30/8	1638	MARSDIEP	04/8
1636	NOOITGEDACHT (A)	30/8	1638	BLITZKIKKER/TUINMAN	04/8
1636	TIJDBREKER	30/8	1639	NEW MEXICO	01/8
1636	SANTANA	31/8	1639	TIJDBREKER	01/8
1636	TIJDBREKER	31/8	1639	TIJDBREKER	03/8
1636	NOOITGEDACHT (A)	01/9	1639	813	04/8
1636	TIJDBREKER	01/9	1639	SYLVANIA	04/8
1636	NOOITGEDACHT (A)	02/9	1639	TIJDBREKER	06/8
1636	TOEKOMST	02/9	1639	ZENDER JOHAN	17/8
1636	SANTANA	03/9	1639	PEDRO	17/8
1636	UTOPIA	03/9	1639	813	21/8
1636	TOEKOMST	03/9	1639	NEW MEXICO/ALOHA	21/8
1636	PELIKAAN	03/9	1639	SYLVANIA	22/8
1636	TIJDBREKER	04/9	1639	TOULOUSE (B)	05/9
1636	UTOPIA	04/9	1640	PEDRO	04/8
1637	DELMARE (B)	05/8	1640	BARONES	06/8
1637	GROTE VERZIERDER	05/8	1640	TIJDBREKER	08/8
1637	BREMEN	05/8	1640	SYLVANIA	08/8
1637	GROTE VERZIERDER	07/8	1640	JOKER	11/8
1637	FLANDRIA	07/8	1640	TURBOJAGER	13/8
1637	ZEETIJGER	08/8	1640	SYLVANIA	14/8
1637	FLANDRIA	09/8	1640	GROTE VERZIERDER	16/8
1637	PELIKAAN	10/8	1640	UTOPIA	20/8
1637	STRAALJAGER	12/8	1640	PEDRO	24/8
1637	DUITSER RUNDUNK	13/8	1640	TURBOJAGER	27/8
1637	FLANDRIA	13/8	1640	SANTANA	28/8
1637	PARTIZAAN	14/8	1640	UTOPIA	28/8
1637	TOULOUSE (B)	14/8	1640	BARONES	28/8
1637	DELMARE (B) VIA BARO	15/8	1640	BLAUWE BULDOG	29/8
1637	FLANDRIA	15/8	1640	BLAUWE BULDOG	01/9
1637	VARIANT	17/8	1641	PEDRO	09/8
1637	DUITSER RUNDUNK	21/8	1641	PEDRO	17/8
1637	SAFARI PARK	21/8	1641	KRISTAL	21/8
1637	DELMARE (B)	28/8	1642	SYLVANIA	07/8
1637	GROTE VERZIERDER	28/8	1642	PEDRO	10/8
1637	HOLLAND	30/8	1642	VROLIJKE MIJNWERKER	19/8
1637	BLAUWE BULDOG	04/9	1642	CASABLANCA INT	29/8
1637	KONTAKT	05/9	1643	GROTE VERZIERDER	09/8
1638	CALIPSO	03/8	1643	VALENCIA	20/8
1638	813	03/8	1643	SYLVANIA	29/8
1638	JOKER	05/8	1643	PEDRO	31/8
1638	KONTAKT	08/8	1644	VALENCIA	14/8
1638	SPANNINGZOEKER	09/8	1644	VALENCIA	04/9
1638	STRAALJAGER	11/8	1645	BARONES	06/8
1638	DOLFIJN	13/8	1645	ZWARTE PANTER	10/8
1638	SPANNINGZOEKER	21/8	1645	PEDRO	23/8
1638	SYLVANIA	21/8	1645	PEDRO	26/8
1638	MARSDIEP	21/8	1646	VALENCIA	13/8
1638	MARSDIEP	23/8	1646	NOVA INTERNATIONAL	03/9
1638	MARSDIEP	24/8	1650	CASABLANCA INT	21/8
1638	MARSDIEP	25/8	1650	HAWAII	31/8
1638	MARSDIEP	01/9			

MEDIUMWAVE PROPERTIES

written by the operator of the
Dutch Pirate Experiment

S-points yes or no comparable?

The strength of a signal is often indicated in S-points, where S9 is equal to 50 microvolt in 50 ohm.

The conversion factor of an antenna depends on the construction and type of the antenna, so a reported S-value makes only sense if it is compared to a known absolute level.

The best signal strength report is given as a field strength in microvolt (or millivolt) per meter. For a carrier, this value is independent of the receiver IF bandwidth.

For the noise (man-made noise and atmospherical noise), this value depends on the receiver IF bandwidth: the received power is proportional to the IF bandwidth. Each doubling of the IF bandwidth increases the noise floor with 3 dB.

How sensitive can a receiver be?

Most AM-receivers have a (noise) bandwidth of about 5 kHz. The atmospherical noise at 1600 kHz has a value of about 1.5 microvolts per meter in 5 KHz bandwidth.

The noise that you hear in the loudspeaker of your receiver is not necessarily the atmospherical noise. Portable receivers with a ferroceptor are specified as "26 dB audio S/N at 750 microvolt/meter with 30% AM." This means roughly a receiver noise floor equal to 8.0 microvolt/meter. A good antenna can improve this "bad sensitivity" but some receivers are overloaded when connected to a wideband antenna system. In that case, additional front-end selectivity is necessary such as an antenna tuner.

Most modern communication receivers are very sensitive and perform well with short (unmatched) antennas; also on lower frequencies.

A simple method to improve the sensitivity of any portable receiver with a ferroceptor is the use of a passive loop, which is not connected to the receiver but only coupled to the receiver by placing the receiver in the loop. A variable capacitor 25 to 400 pF and 15 metre metre. Simply make 5 turns from the wire and connect the capacitor between the two ends. Turn the capacitor; change the direction of maximum sensitivity by changing the plane of the loop. No better receiving antenna exists!

What can be heard?

The external noise floor of 1.5 microvolt/meter limits the reception of weak signals.

AM: presence of signal	2 microvolt/meter
audible modulation	5 microvolt/meter
speech reasonable	20 microvolt/meter
good signal	100 microvolt/meter

MEDIUMWAVE PROPERTIES

SSB (2.5 KHz bandwidth, 1 microvolt/meter noise floor):

presence of signal	0.3 microvolt/meter
audible modulation	1 microvolt/meter
speech reasonable	4 microvolt/meter

How far and how strong?

The field strength at a certain distance from a transmitter depends on the radiated power (effective radiated power is compared to a theoretical dipole, effective isotrope radiated power is compared to a theoretical antenna, a point-source).

One kilowatt E.I.R.P. results in 171 mV/m at 1 km distance. At 25 km, the strength is then 171/25 mV/m and so on when in free space or when the ground is conducting very well, such like sea.

Depending on the frequency, next is important. Due to ground losses, the strength of the ground wave is attenuated. Losses are depending on the conductivity of the ground. A few hundred kilometres is the maximum (day time).

At night time, the propagation is not depending on the ground wave. For distances about 100 km, the reflected wave is already as strong as the ground wave.

The figure, valid for 1600 kHz, gives an indication for the field strength that can be expected at a certain distance from a one kilometre E.I.R.P. transmitter.

Note that for a 10 watt transmitter, those values are 100 times lower in power; that is only a factor ten in voltages. Note also, that antenna (power) efficiency is in the range of only 1 to 50%!

Reflections in the ionosphere are varying with time and day; at 5000 km, the variations can be plus and minus 15 dB. (A one kilowatt SSB signal can sometimes be heard over 10000 km, with some luck). ■

